



ЛАБОРАТОРИЯ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ

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HybriLIT – key to the high performance computing in JINR

The heterogeneous computing cluster HybriLIT, under development in LIT-JINR, is the high performance computing component of the Multifunctional Information and Computing Complex (MICC), which will supply the general purpose information and computing resources asked by the JINR scientific research during the next seven years, 2017–2023.

The state-of-the-art solutions found in the initial implementation stages have resulted in a top level HybriLIT facility which, on the one side, keeps the costs near to the absolute minimum and, on the other side, adequately covers the needs of a wide variety of users within a threefold way:

- Design and implementation of parallel software for computing intensive research by means of several supported programming paradigms;
- Porting to the cluster open software packages, numerical libraries, and parallel codes which are already tuned for hybrid architectures;
- Development of new mathematical methods and parallel algorithms adapted to heterogeneous architectures.